of the heat transfer required to bring about this ice formation must be exceedingly small, and the explanation given accounts for all of the facts observed.

HALOS AND RAIN OR SNOW.

By MARTIN L. DOBLER. Dated Lake Montebello, Baltimore, Md., December 27, 1906.

In compliance with the request in the MONTHLY WEATHER REVIEW of September, 1906, that voluntary observers should look up their old reports and tabulate the dates of halos and the condition of the weather for the twenty-four hours following, I am pleased to give you the best results that I can for the period of my record up to December 27, 1906. I will give both the halos that were followed by rain in twenty-four or thirty-six hours, and also those that were followed by clear weather.

TABLE 1.—*Halos and rain at Lake Montebello, Md.*

Date.	Halos.	State of weather following halo.
November 5, 1905	Solar	Rain, 0.06 inch, occurred on next day.
November 6, 1905	Lunar	Rainfall, 0.06 inch, occurred; partly cloudy.
February 4, 1906	Lunar	Trace of snow day following; cloudy.
February 12, 1906	Solar	Rain, 0.02 inch, followed on 3d day.
March 2, 1906	Lunar	Heavy rain, 0.53 inch, day following.
March 8, 1906	Lunar	Rain, 0.07 inch, occurred on this date.
March 24, 1906	Solar	Rain and snow, 0.03 inch, day following.
April 8, 1906	Solar	Tremendous rain, 1.96 inches, day after.
April 20, 1906	Solar	Trace of rain day after, and 0.13 inch on 3d day.
April 26, 1906	Solar	A partly cloudy day, with high temperature.
May 2, 1906	Lunar	A partly cloudy day; lightning at night.
June 10, 1906	Solar	Heavy rain, 0.71 inch, day following.
August 4, 1906	Solar	Rain, 0.01 inch, occurred 3d day after halo.
September 27, 1906	Lunar	Rain on same date; trace day following.
September 29, 1906	Solar	Rainfall, 0.03 inch, day following.
November 3, 1906	Lunar	Followed by no rain whatever.
November 23, 1906	Lunar	Followed by no rain.

NOTES FROM THE WEATHER BUREAU LIBRARY.

By C. FITZHUGH TALMAN, Assistant Librarian.

The committee appointed by the Governor of Hongkong to inquire whether earlier warning of the typhoon of September 18, 1906, could have been given to shipping has made a report entirely favorable to the officials of Hongkong Observatory. The storm is said to have been of very limited area—about one-eighth the diameter of the average typhoon—and to have moved so rapidly from a point of origin probably near Hongkong that early warning was impracticable. Doctor Doberck, director of the observatory, testified that it was "more like a tornado than a typhoon" and that it "bridges the gap heretofore existing between typhoons and tornadoes." The earlier warnings issued by Zikawei Observatory are said to have referred to a different depression, which passed northwest over Formosa. However, in a pamphlet recently issued from the Manila Observatory,[1] Father Algué maintains that the Formosa and Hongkong storms were identical, and publishes a chart showing the successive positions of the depression for a period of ten days.

It is reported in Symons's Meteorological Magazine for May that Doctor Doberck is about to retire from the directorship of Hongkong Observatory, which he has occupied since 1883.

At a meeting of the Royal Meteorological Society on April 17 a paper was read by Mr. R. L. Holmes on "The phenomenal rainfall in Suva, Fiji, August 8, 1906". About 41 inches of rain is said to have fallen in thirteen hours. This amount is partly estimated, owing to the fact that the gage overflowed several times. (The most remarkable case of excessive rainfall of several hours' duration mentioned in the 2d edition of Hann's Lehrbuch is a fall of 41.44 inches, in one day, at Cherrapunji, India.)

Mr. C. F. von Herrmann, until recently in charge of the Weather Bureau station at Baltimore and of the Maryland and Delaware Section of the Climatological Service, has contributed two memoirs on the local climatology of Maryland, viz, "The climate of Calvert County" and "The climate of St. Mary's County", to special publications of the Maryland Geological Survey devoted to the physical features of the counties in question. These climatological papers have also been issued separately (Baltimore: Johns Hopkins press. March, 1907). They continue the series begun by Dr. O. L. Fassig with "The climate of Allegany County" (Baltimore, 1900), to which the same writer added "The climate of Cecil County" (Baltimore, 1902) and "The climate of Garrett County" (Baltimore, 1902). In 1904 the Maryland Weather Service began publishing Doctor Fassig's "Report on the climate and weather of Baltimore and vicinity", two installments of which have been issued to date. This work, when completed, will probably be the most exhaustive treatise ever published in this country upon the climate of a single station and its neighborhood. The climate of the State, as a whole, was discussed by F. J. Walz in "Outline of present knowledge of the meteorology and climatology of Maryland", published in Maryland Weather Service, [special publication] Vol. I, p. 417–551, (Baltimore, 1899). This work includes abundant statistics concerning normal and extreme values of the meteorological elements, together with isothermal and isohyetal charts; but for collected data, i. e., data for the individual years of record, one must consult the series of county reports now in course of publication, and the special report on the climate and weather of Baltimore.

The Weather Bureau Library has recently received annual résumés of meteorological observations made at the Observatorio Cagigal, Caracas, Venezuela, under the direction of Dr. Luis Ugueto, during the years 1903–1906; also a summary of the rainfall at the same observatory during the years 1891–1902. These are the first meteorological data that have come to us from Venezuela for many years. The principal climatic statistics heretofore available for Caracas are summarized in Zeitschrift der Österreichischen Gesellschaft für Meteorologie, Bd. 7 (1872), p. 379–380. Comparing the results obtained at the Observatorio Cagigal with the earlier observations, we find certain systematic disagreements, especially in the mean temperature data, which are generally 2° to 3° C. lower in the former. It remains to be seen whether the older or the newer observations are at fault, or whether their discordance is to be accounted for by a decided difference in altitude. According to Doctor Ugueto's observations, the mean annual rainfall for the twelve years 1891–1902 was 807.9 mm. (31.81 inches).

Mr. W. F. Tyler, of the Chinese Imperial Maritime Customs, is still pursuing his investigation of the relation of meteorological conditions, especially temperature and humidity, to the sensation of discomfort. His first publication on this subject, "A scheme for the comparison of climates", was reviewed in the MONTHLY WEATHER REVIEW of May, 1904, p. 217. Now we have received a more extensive paper on the subject,[2] in which the psychological aspects of the question are more fully dealt with. The author's "hyther" scale ranges from 0 to 10, 0 representing a perfectly comfortable summer day at Shanghai—warm, but bright, brisk, and bracing—while 10 represents the very worst day ever experienced by the inhabitants of that city—hot, damp, and enervating. So far, discomfort due to cold has not been investigated.

A letter from Professor Scherer, director of the meteoro-

[1] Algué, José. The Hongkong typhoon, September 18, 1906. Advance sheets of the monthly bulletin of the weather bureau for September, 1906. Manila: Bureau of printing. 1906.

[2] Tyler, W. F. The psycho-physical aspects of climate, with a theory concerning intensities of sensation. London: John Bale, Sons & Danielsson. (Reprinted from the Journal of Tropical Medicine and Hygiene, April 15, 1907.)